

ON PROPER NAMES: FREGE VS. KRIPKE*

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Abstract: The present paper is an attempt to identify and analyze the points of conflict in Gottlob Frege's and Saul Kripke's accounts of proper names. My purpose is to show that despite Kripke's critique, Frege's account seems tenable, and a new interpretation of it will be offered in support of this. It will be also suggested that in spite of these differences there may be some important points of agreement which might be regarded as providing common ground for a new perspective on proper names. The conclusions advanced will be that proper names are *rigid* but not *direct* designators, and that we should distinguish between two Fregean senses similar to the *program-algorithm* division proposed by Yannis Moskovakis.

Keywords: proper names, connotation, denotation, sense, reference, description, Direct Reference Theory, algorithm, program.

„The problems are solved, not by giving
new information, but by arranging
what we have already known“.
Wittgenstein

Proper names such as 'Dartmouth', for John Stuart Mill, denote objects without connoting any properties. The Millian terms 'connotation' and 'denotation' correspond partially to what in contemporary philosophy of language are called *sense* and *reference*, respectively.

„Proper names are not connotative; they denote the individuals who are called by them; but they do not indicate or imply any attributes

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as belonging to those individuals. (...) Proper names are attached to the objects themselves and are not dependent on the continuance of any attribute of the object."¹

One important consequence of Mill's view is that identity statements, which contain only non-connotative names such as (a = b) 'Mark Twain is Samuel Longhorne Clemens', don't have semantic content. This means that they are not informative, in the sense that one would not learn anything new upon hearing them; and, similarly, they are not 'descriptive' in the sense they convey no information that could be captured by a definite description. This lack of informativeness leads Mill's theory into difficulties, namely into what is often called *Frege's Puzzle*. As Frege pointed out, identity of reference doesn't imply identity of meaning.

Frege argues that our understanding of a proper name cannot consist just in knowing its reference, as in Mill's account. His proposal is that besides possessing a reference, a proper name has a *sense*, the sense being a *mode of presentation* ("Art des Gegebenseins") of the reference. But if sense is not reference, as on Mill's case, then what is the sense? Frege does not provide a very clear answer to that question. He does not offer any clear elaboration regarding the nature of these modes of presentation, leaving room for various interpretations. Frege does, however, say that the sense of an expression determines its reference, but not vice versa.

Maybe precisely because for Frege the problem of what sense is seems to be a clear and unproblematic point, he didn't offer us an explicit account of the issue. He says that „the sense of a proper name is grasped by everybody who is sufficiently familiar with the language or totality of designations to which it belongs.“² However, a sort of hint may be found in the following footnote:

„(*) In the case of an actual proper name such as 'Aristotle' opinions as to the sense may differ. It might, for instance, be taken to be the following: the pupil of Plato and teacher of Alexander the Great. Anybody who does this will attach another sense to the sentence 'Aristotle was born in Stagira' than will a man who takes as the sense of the name: the teacher of Alexander the Great who was born in Stagira. So long as the reference remains the same, such variations of sense may be tolerated, although they are to be avoided in the theoretical structure of a demonstrative science and ought not to occur in a perfect language.“³

¹ Mill, J.S, *A System of Logic. Ratiocinative and Inductive*, 8th edition, London, Longmans, 1959, p.20.

² Frege, G., „Über Sinn und Bedeutung“, *Zeitschrift für Philosophie und philosophische Kritik*, 100; translated as „On Sense and Reference“, 1892; in Harnish, A. (ed.), *Basic Topics in the Philosophy of Language*, Prentice-Hall, 1994, p. 143.

³ *Ibidem*, p. 159.

This is a famous footnote and it has been used intensively and inaccurately to support the thesis that the sense of a proper name is captured entirely by the definite description attached to that name. This is one of the few times¹ when Frege, while trying to be more explicit and clear, is actually introducing what seems, at a rapid reading, a regrettable confusion. With regard to this note, three points should be stressed here:

- (i) the user of a proper name attaches different descriptions to the names, descriptions that vary from person to person, from context to context;
- (ii) such descriptions do not exhaust the sense of a proper name;
- (iii) for pragmatic reasons, such practices in the case of natural languages may be tolerated,² so long as the reference remains the same.

But it is pretty clear that from (*) it is a long way to Kripke's claim that for Frege:

(α) *The sense of a proper name is (determined by) a definite description.*

Reading „meaning“ instead of „sense“, the above statement seems to be all right.³ The problems arise when, in virtue of α , one replaces names with descriptions, and, even further, maintains that the referent of a name is determined by such descriptions. Kripke says explicitly in the beginning of *Naming and Necessity* that:

„Frege and Russell both thought, and seemed to arrive at these conclusions independently of each other, that Mill was wrong in a very strong sense: really a proper name, properly used, simply was a definite description abbreviated or disguised. Frege specifically said that such a description gave the sense of the name.“⁴

This passage is supplemented by a note:

„Strictly speaking, of course, Russell says that the names don't abbreviate descriptions and don't have any sense; but then he also says that, just because the things that we call 'names' do abbreviate descriptions, they're not really names. (...) Though we won't put things the way Russell does, we could describe Russell as saying

¹ The other, as far as I know, is a similar passage in the „Thought“, where is discussing the case of Dr. Laudan.

² Beaney interprets (*) in a similar way: „[I]t might be suggested that Frege's use of this example was not so much to illustrate a 'description theory' of proper names, as merely to highlight how far short ordinary language falls of the ideal logical language that Frege was primarily concern to develop. (...) The point of the footnote is to make clear that in the case of an ordinary proper name, there is typically no *unique* definite description that supplies *the* sense of the name. Only in an ideal language can the demand for uniqueness be satisfied.“ Beaney, *M., Frege. Making Sense*; Duckworth, 1996, p. 172.

³ By 'meaning' here I understand what I will call later S_2 .

⁴ Kripke, S., *Naming and Necessity*; Harvard University Press, 1980, p. 27.

that names, as they are ordinarily called, do have sense. They have sense in a strong way, namely, we should be able to give a definite description such that the referent of the name, by definition is the object satisfying the description."¹

But although Kripke agrees that he somehow missed the target with regard to Russell's view, he didn't say anything similar with regard to Frege, where in fact he missed fundamentally the target. Actually, at the beginning of *Naming and Necessity* Kripke quotes (*) in full,² drawing the conclusion that α is the obvious problem of 'canonical' Frege-Russell Theory, mentioned by Frege himself.

As William Lycan pointed out, it might be interesting to note that α is in fact Russell's 'Name Claim',³ an idea that extends his well-known Theory of Descriptions (TD).⁴ He adds:

„It is important to see that the Name Claim is entirely independent of the Theory of Descriptions itself. (...) [O]ne might accept either doctrine while rejecting the other: some theorists hold the Theory of descriptions as a theory of definite descriptions themselves, while rejecting the Name Claim entirely; less commonly, one could embrace the Name Claim but hold a theory of descriptions different from Russell's."⁵

α and TD were different and separate claims, and should be treated as such, because Russell's theory of descriptions is intended to be a theory of meaning,⁶ showing us how we should logically understand and analyze expressions like „The present King of France“, whereas the 'Name Claim' works in the line of a theory of reference, stating that what we call proper names are in fact concealed definite descriptions. But although for Frege we can attach different definite descriptions to a proper name, the sense of that name is not entirely revealed by any particular description, and even more, it cannot be replaced by any means with this description. To attach something

¹ Ibidem, footnote 41, p. 79.

² Kripke [1980], p. 30.

³ Lycan, W., *Philosophy of Language. A Contemporary Introduction*; Routledge, 2000, p. 37.

⁴ The relation of Russell's account of proper names and Kripke's criticism falls outside the purpose of the present paper and constitutes the topic of a forthcoming paper. TD and Donnellan's critique of it are mentioned here only to indicate the misleading route in which Frege was inaccurately understood and/or presented by Kripke [1980].

⁵ Ibidem, p.39.

⁶ David Kaplan says in 'What is Russell Theory of Descriptions' that: „Russell's article 'On Denoting' is not about a theory of descriptions comparable to Frege-Carnap or Frege-Strawson. Russell's article is about logical form, and is in the tradition of those philosophers who have warned us of the dangers of confusing the grammatical form of a sentence in ordinary language with its logical form.“ For a fine analysis of Russell's theory of meaning in connection with his theory of description, see Demopoulos, W., *On the Theory of Meaning of 'On Denoting'*; in „Nous“, Vol. 33. No.3, 1999, pp. 439-458.

to a thing doesn't imply that you are entitled to replace the thing with this 'something'. Harold Noonan says:

„This way of identifying a sense - as a way of thinking of something *as* the satisfier of a certain condition - fits well with Frege's own infrequent specifications. Thus, in a footnote in „On Sense and Reference“, in which he is illustrating the imperfections of ordinary language, he writes: [Frege's footnote (*)]

In this passage Frege specifies by description the different conditions corresponding to the different senses associated with the name 'Aristotle' by different users. However, as has been stressed by Dummett and Evans there is no need to assume that every way of thinking of an object must be via some descriptive condition, and there is not the slightest reason to think that Frege thought otherwise (as sometimes suggested, see Perry). (...)

Thus, despite the fact that when he attempts to *specify* a sense Frege invariably does so via a *descriptively* identified condition, we must not suppose that he thought that sense *must* be descriptive, and in so far as modern critics assume this they are attacking a straw man.¹

Further, it might be important to point out the particular significance of understanding Fregean senses as *ways of thinking of* the objects designated by the proper names.

„[T]he easiest approach to the notion of sense is to think of it as a *way of thinking of* something, a way of thinking of something *as* something. Thus I can think of the Evening Star *as* the Evening Star, or as the Morning Star, or as the planet Venus, or as the heavenly body most often referred to by philosophers writing about Frege. All these are different ways of thinking of one and the same object. In each case it is a matter of thinking of the object as the unique one satisfying a certain *condition*.“²

'Condition' seems to suggest here the existence of a definite description that needs to be satisfied. If so, it seems that the Russelian assumption α comes again into the picture. As I have already mentioned, Russell treats ordinary proper names as disguised or truncated descriptions, suggesting that a proper name denotes in virtue of and via its associated description.

Keith Donnellan,³ on the other hand, holds the opposing view that ordinary proper names do not refer mediated by a sense or a definite description. He extends the analysis to what is probably the most common use of definite descriptions, the so-called *referential*, in contrast with the *attributive* use of definite descriptions. Donnellan shows that descriptions are sometimes

¹ Noonan, H., *Frege. A Critical Introduction*; Polity, 2001, p. 179.

² *Ibidem*, p. 178.

³ Donnellan, K., *Reference and Definite Descriptions*; in Martinich [1996].

quantificational à la Russell, and other times referential. He considers the following example: A detective discovers a mutilated corpse that he identifies as Smith. Though he does not know who the murderer is, the detective says „Smith’s murderer is insane“(a). Later, when the killer is identified as Jones and testifies in court, Smith’s wife, who hears the testimony, says, „Smith’s murderer is insane“(b). On Donnellan’s account, in the first circumstance (a) the description is being used *attributively*, while in the second case (b) it is being used *referentially*. Donnellan shows that in our daily life the most common way of using a description is referential, namely to point to an object. On the other hand, he points out that this usage of descriptions could not be accommodated in Russell’s theory, which is only designed to provide an account of the attributive role of descriptions.

Donnellan’s idea is fully developed by a number of philosophers who espouse the so-called: „The Theory of Direct Reference“. They hold that proper names (and, by extension, natural kinds as well) are *direct rigid designators*. ‘Direct’ means here that the relation between a proper name and its bearer is unmediated, whereas ‘rigid’ captures the idea that the name-reference connection is secured by the fact that a name cannot fail to designate its reference. This Millian picture is supplemented by the additional claim that the name-bearer relation is ensured by the existence of a socio-historical causal chain which ties the name to its reference in virtue of an initial ceremony of ‘baptizing’ the new object or person.

In *Naming and Necessity* Kripke presents a whole battery of powerful arguments directed against any attempt to claim that names secure their referents by their descriptive contents. Kripke can be interpreted as maintaining a very strict Millian view, namely that proper names do not have any semantic content. But I think that the correct interpretation is that for Kripke proper names have associated descriptive contents (in fact most of his arguments use this assumption), but these ‘contents’ do not play any role in determining the referent of a proper name. Nathan Salmon, a well-known supporter of Kripke’s view, makes this point explicitly:

„Also misleading, though literally correct, is the characterization of the direct-reference theory as the doctrine that names are descriptive, the direct-reference theory as the doctrine that names and indexicals have reference but not sense. (...) What the direct-reference theory denies is that the conceptual content associated with an individual constant is what secures the referent.“¹

It should be also added that Kripke admits that descriptions play a referential role in the initial baptism, but this role is only to fix the reference, not to secure the name-bearer relation when the name is passed from speaker

¹ Salmon, N., *Introduction to the chapter ‘Sense & Reference’*; in Harnish [1994], p. 116.

to speaker.¹ Thus, it seems that one can characterize Kripke's account as comprising three main principles:

K1: Proper names have associated descriptions.

K2: The associated descriptions do not secure the referent.

K3: The name-referent connection is secured by a causal chain.

By contrast, the canonical (Frege-Russell) view² could be characterized by the theses:

C1: Proper names have meanings.

C2: The 'meaning' of a proper name is captured by a definite description.

C3: The referent is determined by these descriptions.

On the other hand, Frege's account endorses two important points:

F1: Proper names have *senses*.

F2: The *senses* determine their referents.

Thus, it is clear that the main point of disagreement between Frege and Kripke is the referential role attributed to senses. Even though it is very difficult to find an explicit passage supporting F2, it seems not inaccurate to say that Fregean senses do play a referential role. On the other hand, Kripke proved conclusively that, although names have associated descriptions as meanings, these descriptions do not secure the name-referent connection. Thus, in order to be tenable, Frege's picture must show that senses, when playing the referential role, are not descriptive. It seems that we are confronted with a dilemma:

- (A) Either we accept that proper names have *senses* (descriptive contents) in order to avoid Frege's puzzle, or
- (B) we deny that the referent of a proper name is determined by its descriptive content, in order to avoid Kripke's arguments.

My claim is that Frege doesn't fall on either horn of this dilemma because for him proper names have sense (*content*) and hence he can explain why identities like $a = b$ are informative sentences, but these *senses* cannot be identified and thus replaced with definite descriptions and thus he is not affected by Kripke's criticism. A Fregean sense is not exhausted by its associated description(s). But, if for Frege senses are not to be understood as being entirely descriptive, then what are they? Whatever they might be, *senses* must

¹ In fact Kripke [1980], p. 135 says: „In the case of proper names, the reference can be fixed in various ways. In a initial baptism it is typically fixed by an ostension or by a description. Otherwise, the reference is usually determined by a chain passing the name from link to link“.

² This is what Kripke calls „Frege-Russell Theory“.

fulfill two main roles: they must be informative and must secure reference. But, if senses secure the connection between name and object, does this always mean that when we grasp a sense of a proper name we are assured of the existence of its referent? Not necessarily. There are empty proper names, names that possess sense but lack reference. The sense is our mental *route* to the designated object, and in such cases there is simply no object (waiting for us) at the destination. However, we are using such „mock“ proper names *as if* they were standing for an actual object.

So, it seems that that concerning proper names it is important to distinguish between two Fregean senses. One is the *general sense* (S_1), namely sense understood as the vectorial route from sign to object; the other one is a *particular sense* (S_2), namely, the (variable) descriptive content attached by the speaker in different circumstances. This latter sense is determined by a particular linguistic context and our individual knowledge of the designated referent.

In the practice of language we need first to identify an expression as being a proper name, as directing us to an object, and after choosing such a way we are going, metaphorically speaking, to make the trip to a precise referent with the help of a particular vehicle, namely, with a particular cognitive content. S_1 is the way and S_2 is the vehicle.

The role of proper names in language assures us of the existence of S_1 , of the existence of a „pointing mechanism“ inherent in the simple fact of its being a proper name. This mechanism entitles Frege to maintain that senses are *objective* and *unique*. ‘Objective’ means that they are mind-independent and communicable (shareable by different users of the same language), while ‘unique’ means exactly that there is a single connection between a name and its bearer. On the other hand, with the help of the constraints of a particular context,¹ we can circumscribe (and express) S_2 . This is the „meaning“ attached to a name, expressing its conventional significance in a determined linguistic context. S_2 could be expressed by a single definite description or as a cluster of such descriptions. Obviously S_2 is not unique, and this fact is stressed by the (*) note.

S_1 and S_2 reveal different semantic roles of a proper name in a language. S_1 ensures that there is a unique link between a name and some single object, whereas S_2 displays the descriptive content attached to a particular name. S_1 belongs primarily to a theory of reference, while S_2 is central for a theory of meaning. Thus, I agree with Noonan that: „We can conclude that despite his mistaken assumption that Frege had to hold the sense of proper names to be descriptive, Kripke’s arguments against the ‘Frege-Russell’ theory of

¹ Perry, J., *Reflexivity, Indexicality, and Names*, in Künne & Newen & Anduschus [1997], p. 11, says: „The same name has many different meanings; as with ambiguous expressions, the role of context is to help us determine which meaning is relevant in a given use“.

names cannot be dismissed from the outset as merely irrelevant to Frege's position."¹

In the light of the previous distinction it should be clear now that Kripke along with many others make a confusion between S_1 and S_2 , and certainly we should not try to secure the reference of a proper name through a definite description. Thus, he is mixing up the way to something with the vehicle, which takes us to the destination. But the road and the vehicle should remain distinct, if we want the journey to end well.

In order to have a complete picture, I should now analyze the relation between S_1 and S_2 , and Kripke's causal referential chain. Note, first, that one might object that S_1 is in fact Kripke's idea of how a referent of a proper name is secured in a socio-linguistic context. It might be true that both views can be accommodated as different sides of the same coin, in the sense that the Fregean S_1 is a logical analysis of the referential role of proper names, whereas Kripke's causal chain is a socio-historical analysis of the referential process. A name (and I think that both Frege and Kripke would agree with this point) is introduced either ostensively or descriptively. After this initial 'baptism' the reference is secured for Frege by the inherent role of proper names, and, for Kripke, by *borrowing*² the reference, namely, by passing it from user to user.

The relation between S_1 and S_2 may now be characterized as follows: S_2 presupposes logically S_1 , namely, S_1 is a necessary condition for the existence of S_2 , and so S_1 comes always along with a S_2 , in the sense that, in order to get a particular reference, the S_1 mechanism needs a S_2 instantiation in a precise context. The context fixes a determined (*bestimmt*) content and is a mark of a certain mental rapport between the speaker and the named object. As Jaegwon Kim puts it:

„To name an object you must be in some sort of cognitive touch with it. (...) The idea seems to be that being 'en rapport' with an object is a necessary condition for naming or referring to it, and that unless you can name or refer to an object, you are not in a position to formulate a proposition about it.”³

The role of the distinction is thus to accommodate a *prima facie* contradiction in Frege's philosophy, namely, the fact that sense is characterized as unique and objective, and, on the other hand, as varying from speaker to speaker, from context to context, as it is suggested in note (*). My feeling is that such a distinction could be well accommodated with Kripke's view. However, a kind of difficulty seems to remain, namely, the disagreement

¹ Noonan [2001] p. 216.

² The term is „borrowed“ from Devitt [2001].

³ Kim, J., *Perception and Reference without Causality*, „The Journal of Philosophy“, vol. LXXIV, nr. 10, 1977, p. 614.

between Kripke's characterization of the referential mechanism as being causal, whereas for authors like Frege and Russell the referential relation is based on intentionality, being viewed as *a direct cognitive contact* or acquaintance with the referent of a proper name.¹ But as I mentioned, Frege, and also Russell to some extent, are mainly interested in analyzing the logical features of (natural) languages, whereas philosophers like Kripke, Putnam or Donnellan are interested in a the socio-historical characterization of the uses of proper names.

Summing up the discussion so far, the main claim of The New Theory of Reference² is that proper names are *directly* referential *rigid* operators. Since both Frege and Kripke agree with the „rigidity“ of names, the problem that concerns us was the Millian characterization of names as *directly* referential devices. In this case we are urged to eliminate this Millian ingredient from our conception and to preserve exclusively the idea of proper names as rigid designators. Thus, in order to cope with 'Frege's Puzzle', we need to reject the Millian conception of proper names and only to preserve the Kripkean idea of names as rigid designators. I urged the idea that a *name is a „rigid“ but not a „direct“ linguistic device*. Being Millian inevitably means being rigid, but the reverse is not necessarily true. Lycan explicitly points out that „being Millian certainly implies being rigid. But the reverse does not hold. Although Kripke cites Mill and argues that names are rigid, rigidity does not imply being Millian.“³ There are definite descriptions which are rigid, the most common cases being descriptions of mathematical truths.⁴ Therefore, the conclusion is that a name is a *rigid indirect* designator, and that Frege's view on proper names is still a tenable account that deserves continued consideration.

Now I shall try to more light on the previous distinction between two kinds of Fregean senses. Contrary to the Direct Reference Theory, I am in favour of the Fregean conception that proper names have senses and that these senses play a referential role. Even some direct reference theorists agree that proper names are informative, but they deny that this piece of information (generally, regarded as a definite description) secure the reference. They hold that the connection between proper names and their referents is rigid and direct, unmediated by anything else. It is true that the connection is rigid, but it is false that is direct. Proper names do have senses and they secure the relation between names and their reference. But what are then

¹ For further details concerning the relation between Russell's notion of *knowledge by acquaintance* and Kripke's view of the initial *baptism*, see Kim [1975].

² This is just another name of the Theory of Direct Reference.

³ Lycan [2000] p. 55.

⁴ „Arithmetical truths (which are necessary truths...) such as 'the positive square root of nine' are rigid, because they designate the same number in every possible world, but are certainly not Millian because in order to secure their reference they exploit their conceptual content“; Ibidem, p. 55.

these mysterious entities? A fruitful way to conceive them is to see them as *mental routes* from words to their referents. But still this characterization is too vague. The question still remains: What are they? A suggestion may be found in Yannis Moschovakis (1993). Here, Fregean senses are seen as *algorithms*. I think that this is a fruitful and interesting idea, which deserves to be better investigated.

First of all, it is clear that an algorithm starts with something (a name, introduced as a constant in the place of a variable) and ends with a certain result (the referent of a name). This is a *mental procedure* which secure the link between proper names and their referent. So far, so good, but we have two accommodate two features of proper names: that they are *objective inter-communicable unique* entities, but still *context-sensitive*. That means that they can be grasped and shared by many speakers of the same language, but still some users of a particular language, on certain occasions, may understand different things under the same proper names. Here comes in place Moskovakis's distinction between an *algorithm* and a *program*. **A program is an implemented algorithm.** An algorithm plus a certain language in which this is conceived yields a certain program. So, for the same algorithm, which is unique and objective, we may have various programs, depending on the language in which this algorithm is expressed. Similarly, as Frege's says, a sense contains¹ certain modes of presentations. These modes of presentations are context-dependent, in the sense that they vary along with the speaker, language, contexts, etc. These modes of presentation (or ways of thinking) are further expressed, mainly, with the help of definite descriptions. They act like programs, they require a certain linguistic ambient to be exemplified. The information conveyed by a definite description is only a part of the sense of a proper name, exactly as different programs are all contained in a certain algorithm. A mode of presentation is part of a sense but does is not exhaust it.

Each linguistic entity that works as a proper name in language has to be regarded as a proper name, namely, to be recognized by the speaker as fulfilling the role of a proper name, to designate uniquely a certain individual. It is like a logic routine saying „*if* x is a proper name **then** do...” and the result will be a certain individual. But then certainly some set of pieces of knowledge should be appealed in order to complete the procedure. An algorithm means a logical sequence of (en)coded instructions specifying the operations to be perform by a user in processing data. Accordingly, names should be seen somehow like files in our mind. Using a name is like opening a file.² How else could we explain situations when we do not remember a name, but still we can think of it, namely we can pick out the person

¹ In original (from *Sinn und Bedeutung*): „was ich den Sinn des Zeichens nennen moechte, worin die Art des Gegebenseins **enthalten** ist.“

² These mental files ar not just collection of data, but they contain also specific prodedures how to deal with the data.

which bears it, we can identify that certain individual whose name we cannot recall it. Of course, we may use a definite description to circumscribe it and thus to identify it, but this description has to match something similar in the name-file. In this respect names do not act (mentally) differently than natural kinds or common names. The difference is that there the program is design to yield a class of individuals and not a single one.

Another problem left unexplained by Direct Reference Theory and nicely accommodated by the 'algorithm conception' is the issue of empty proper names. If senses secure the connection between name and object, does this always mean that when we grasp a sense of a proper name we are assured of the existence of its referent? Not necessarily. There are empty proper names, names that possess sense but lack reference. The sense is our mental *route* to the designated object, and in such cases there is simply no object (waiting for us) at the destination. However, we are using such „mock“ proper names *as if* they were standing for an actual object. We still have a certain algorithm for them. The program in this case won't have as output any object, but still we have a mental routine. In order to have this result, we still have to have a certain algorithm associated with the name. But what are empty proper names for direct reference theorists? How do they function in the language since they lack reference and thus they would not have any meaning?

In conclusion, following the algorithm-program division, and the previous S_1 , S_2 , we may divide Fregean senses in two classes and call them S_1 and S_2 . S_1 stands for senses seen as algorithms, whereas S_2 represents the implementation of S_1 in specific contexts. The role of proper names in language assures us of the existence of S_1 , of the existence of a „pointing mechanism“ inherent in the simple fact of its being a proper name. This mental routine encoded in each proper name entitles Frege to maintain that senses are *objective* and *unique*. 'Objective' means that they are mind-independent and communicable (shareable by different users of the same language), while 'unique' means exactly that there is a single connection between a name and its bearer. On the other hand, with the help of the constraints of a particular context,¹ we can circumscribe (and express) S_2 . This is the „meaning“ attached to a name, a specific mental route expressing its conventional significance in a determined linguistic context. S_2 could be expressed by a single definite description or as a cluster of such descriptions. Obviously S_2 is not unique, and this fact is stressed by Frege's (*) note:

S_1 and S_2 reveal different semantic roles of a proper name in a language. S_1 ensures that there is a unique link between a name and some single object, whereas S_2 displays the descriptive content attached to a particular name.

¹ John Perry says that „the same name has many different meanings; as with ambiguous expressions, the role of context is to help us determine which meaning is relevant in a given use.“ Perry [1997] pp. 3-19.

One is the unique *algorithm* which stands behind each name, whereas the other express one of the various possible implementations of it, the multitude of the *programs* generated by the same algorithm in various programming mediums (languages). S_1 is the unique mental *routine* encoded in each proper names, S_2 is one of the various mental *routes* taken by a user of a proper name to make the journey from a linguistic device to its ontological referent.

BIBLIOGRAPHY:

- BEANEY, M. - *Frege. Making Sense*, Duckworth, 1996.
- DEMOPOULOS, W. - *On the Theory of Meaning of 'On Denoting'*; in „*Nous*“, Vol. 33. No.3, 1999, pp. 439-458.
- DEVITT, M. - *A Shocking Idea about Meaning*; in „*Revue Internationale de Philosophie*“, Vol. 208, 2001, pp. 449-472.
- DONNELLAN, K. - *Reference and Definite Descriptions*, in Martinich, A.P., (ed.), Oxford University Press, 1996.
- FREGE, G. - *Über Sinn und Bedeutung*; in „*Zeitschrift für Philosophie und philosophische Kritik*“, 100, 1892; translated as *On Sense and Reference*, in Harnish, A. (ed.) - *Basic Topics in the Philosophy of Language*, Prentice-Hall, 1994.
- HARNISH, A. (ed.) - *Basic Topics in the Philosophy of Language*, Prentice-Hall, 1994.
- KIM, J. - „*Perception and Reference without Causality*“; in „*The Journal of Philosophy*“, vol. LXXIV, nr. 10, 1977, pp. 606-620.
- KRIPKE, S. - *Naming and Necessity*, Harvard University Press, 1980.
- KÜNNE, W., NEWEN, A. and ANDUSCHUS, M. (eds.) - *Direct Reference, Indexicality and Propositional Attitude*, Center for the Study of Language and Information, Standford, California, 1997.
- LYCAN, W. - *Philosophy of Language. A Contemporary Introduction*, Routledge, 2000.
- MILL, J.S. - *A System of Logic. Ratiocinative and Inductive*, 8th edition, London, Longmans, 1950.
- MOSKOVAKIS, Y. N. - *Sense and denotation as algorithm and value*; in Oikkonen, J. and Väänänen, J. (eds.), pp. 210-249, 1993.
- NOONAN, H. - *Frege. A Critical Introduction*, Polity, 2001.
- OIKKONEN, J. and VÄÄNÄNEN, J. (eds.) – *Logic Colloquium '90:ASL Summer Meeting in Helsinki*, Springer, 1993.

PERRY, J. - *Reflexivity, Indexicality, and Names*; in Künne & Newen & Anduschus, 1997, pp. 3-19.

SALMON, N. - *Introduction to the chapter 'Sense & Reference'*; in Harnish, A. (ed.) - *Basic Topics in the Philosophy of Language*, Prentice-Hall, 1994.